

IN THE UNITED STATES DESIGNATED/ELECTED OFFICE

International Application No. : PCT/EP02/12533
International Filing Date : 8 November 2002 (08.11.2002)
Priority Date(s) Claimed : 24 December 2001 (24.12.2001)
Applicant(s) (DO/EO/US) : Hans-Michael EGGENWEILER et al.

Title: PYRROLOPYRIMIDINES AS PHOSPHODIESTERASE VII INHIBITORS

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §§ 1.56, 1.97 and 1.98

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This information disclosure statement is made in accordance with 37 C.F.R. §§ 1.56, 1.97 and 1.98 as follows:

Timing and Fees

- ☒ Under 37 C.F.R. § 1.97(b), no fee or statement is required for filing this information disclosure statement is filed:
- ☐ within three months of the filing date of a national application other than a CPA under § 1.53(d);
 - ☒ within three months of the actual filing date of the national phase of a PCT application; OR
 - ☐ before the mailing of a first substantive office action (including after filing of an RCE).
- ☐ Under 37 C.F.R. § 1.97(c), this information disclosure statement is filed after the periods specified in 37 C.F.R. § 1.97(b), but before the mailing date of:
- ☐ a final rejection under 37 C.F.R. 1.113;
 - ☐ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR
 - ☐ a notice of allowance under 37 C.F.R. § 1.311; and

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is accompanied by:

- ☐ the statement as specified in 37 C.F.R. § 1.97(e) set out below; OR
 - ☐ a check covering the fee of \$180.00 under 37 C.F.R. § 1.17(p).
- ☐ Under 37 C.F.R. § 1.97(d), this information disclosure statement is filed after the mailing date of the following actions which have not been withdrawn:
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 - ☐ termination of prosecution, e.g. Ex Parte Quayle, M.P.E.P § 609(B)(2); OR
 - ☐ a notice of allowance under 37 C.F.R. § 1.311;

AND is filed on or before payment of the issue fee; AND is accompanied by:

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Statements Under 37 C.F.R. 1.97(e)

- ☐ Each item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application having a mailing date not more than three months prior to the filing date of this information disclosure statement; or
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and to the knowledge of the undersigned attorney after making reasonable inquiry, no item of information contained in this information disclosure statement was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing date of the information disclosure statement.

Cited Materials

- ☐ Copies of materials listed but not attached were cited in benefit (35 U.S.C. § 120) ancestor application Serial No. _____, on Form 892 by the Examiner and/or Form 1449 by the applicant; see 37 C.F.R. § 1.98(d).
- ☒ Copies of materials listed but not attached were cited in an international search report dated 20 March 2003 (20.03.2003).
- ☐ Copies of the materials listed are attached (except for the foregoing).

Non-English Language References

☐ An English-language search report or equivalent paper from a foreign patent office is provided indicating the relevance of the cited reference(s).

☒ A foreign-language search report from a foreign patent office is provided, and pertinent parts are translated substantively below:

X = document of particular relevance when it is taken alone

Y = document of particular relevance when it is combined with another such document

A = document defining the general state of the art

O = non-written disclosure

P = intercalated document

T = document cited to understand the theory or principle underlying the invention

E = patent document which has the benefit of a date earlier than the filing date and which was published only on or after this filing date

D = cited in the application

L = cited for another reason

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☐ Translation of other relevant information on foreign search report

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Other Information

Payment of Fees Due (If Any):

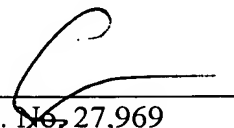
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Respectfully submitted,



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Attorney Docket No.: MERCK-2893

Date: June 23, 2004

AJZ:ssr

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Complete if Known

Application Number	USNP of PCT/EP02/12533
Filing Date	8 November 2002 (08.11.2002)
First Named Inventor	H. EGGENWEILER et al.
Group Art Unit	unassigned
Examiner Name	unassigned
Attorney Docket Number	MERCK-2893

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
	003	EP	0005205		Troponwerke GmbH & Co.	11-14-1979		
	004	EP	0482804		ICI PLC	04-29-1992		
	005	DE	3145287		Troponwerke GmbH & Co.	05-19-1983		
	006	WO	94 13676		PFIZER INC.	06-23-1994		
	007	WO	0157025		Pfizer Products Inc.	08-09-2001		
	008	WO	0129049		Merck Patent GmbH	04-26-2001		
	009	WO	0134601		Merck Patent GmbH	05-17-2001		
	010	WO	0132618		Merck Patent GmbH	05-10-2001		

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¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. Number refers to English language corresponding family member.

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Group Art Unit	unassigned
Examiner Name	unassigned
Attorney Docket Number	MERCK-2893

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	011	K. EGER ET AL. "Selected Reactions on the o-Aminonitrile System of Substituted Pyrroles" J. HETEROCYCL. CHEM., Bd. 24, Nr. 2, 1987	
	012	C.E. MUELLER ET AL. "7-Deaza-2-phenyladenines: Structure-Activity Relationships of Potent A1 Selective Receptor Antagonists" J. MED. CHEM., Bd. 33, Nr. 10, 1990	
	013	M. ADENOT ET AL. "Interest of cluster significance analysis in structure-affinity relationships for non-xanthine heterocyclic antagonists of adenosine" EUR. J. MED. CHEM Bd. 32, Nr. 6, 1997	
	014	A. MIYASHITA ET AL. "Preparation of heteroarene carbonitriles by reaction of haloheteroarenes with potassium cyanide catalyzed by sodium p-toluenesulfonate" HETEROCYCLES, Bd. 39, Nr. 1, 1994	
	015	G. FOLKERS, H.-D. HOLTJE "Active site molecular modelling of xanthine oxidase inhibitors with anti-inflammatory activity" J MOLECULAR GRAPHICS, Bd. 3, Nr. 4, 1985	
	016	D. STEINHILBER ET AL. "New Class of 5-Lipoxygenase Inhibitors: Correlation Between Inhibition of LTB4 Production and Chemiluminescence of Human Polymorphonuclear Granulocytes" PHARM. RESEARCH Bd. 3, Nr. 5, 1986	
	017	F. JOHANNSEN ET AL. "Reactions of Heterocyclic o-Aminonitriles with Acetic Formic Anhydride" CHEMICA SCRIPTA, Bd. 26, Nr. 2, 1986	
	018	H.J. ROTH, K. EGER "Synthesen von Pyrrolo'2,3-diprimidinen" ARCH. PHARMAZ., Bd. 308, Nr. 4, 1975	
	019	J.W. DALY ET AL. "7-Deaza-9-phenyladenines. A new class of adenosine receptor antagonists" BIOCHEM. PHARMACOL., Bd. 37, Nr. 19, 1988	
	020	A.O. ABDELHAMID ET AL. "Reactions with heterocyclic enaminonitriles: synthesis of pyrrolo'2,3-bipyridine, pyrrolo'2,3-diprimidine and pyrrole derivatives" HETEROCYCLES, Bd. 27, Nr. 8, 1988	
	021	S. KLUMPP ET AL. "Pyrrolo'2,3-diprimidines as inhibitors of cAMP Phosphodiesterase" BIOCHEM. PHARMACOL., Bd. 38, Nr. 6, 1989	
	022	A. MIYASHITA ET AL. "Catalytic Action of Azolium Salts. IX. Synthesis of 6-Aroyl-9H-purines and Their Analogues by Nucleophilic Aroylation Catalyzed by Imidazolium or Benzimidazolium Salt" CHEM. PHARM. BULL., Bd. 46, Nr. 3, 1998	
	023	G. FOLKERS: "Rezeptoraffinität von Xanthinoxidase-Inhibitoren-strukturelle Voraussetzungen" DEUTSCHE APOTHEKER ZEITUNG, Bd. 126, Nr. 41, 1986	

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